

What is claimed is

1. A two-component system with controllable pot life,  
curing via a redox initiator system and composed  
of the following components:

component A

from 0.8 to 70% by weight, based on the entirety  
of polymers and monomers (component A and  
component B), of a polymer or polymer mixture  
prepared via aqueous emulsion polymerization and  
comprising from 0.01 to 30% by weight of a  
component of a redox initiator system mainly  
absorbed in the polymer particles or on the  
polymer particles,

component B

from 30 to 99% by weight, based on the entirety of  
polymers and monomers (A and B), of at least one  
ethylenically unsaturated monomer,

component C

from 0.01 to 5% by weight, based on the entirety  
of polymers and monomers (A and B), of at least  
one component of a redox initiator system which  
forms the partner of the initiator component  
absorbed in the particles of A, and

component D

from 0 to 800% by weight, based on the entirety of  
polymers and monomers (A and B), of fillers,  
pigments, and other auxiliaries.

2. The composition as claimed in claim 1, composed of  
the following components:

component A

from 3 to 60% by weight, based on the entirety of

polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

component B

from 40 to 97% by weight, based on the entirety of polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

component C

from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, and

component D

from 0 to 800% by weight, based on the entirety of polymers and monomers (A and B), of fillers, pigments, and other auxiliaries.

3. The composition as claimed in claim 1, composed of the following components:

component A

from 5 to 60% by weight, based on the entirety of polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

component B

from 40 to 95% by weight, based on the entirety of

polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

component C

5 from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, and

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component D

from 0 to 800% by weight, based on the entirety of polymers and monomers (A and B), of fillers, pigments, and other auxiliaries.

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4. The composition as claimed in claim 1, composed of the following components:

component A

20 from 10 to 50% by weight, based on the entirety of polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

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component B

30 from 50 to 90% by weight, based on the entirety of polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

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component C

35 from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, (component C) and

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component D

from 0 to 800% by weight, based on the entirety of  
polymers and monomers (A and B), of fillers,  
pigments, and other auxiliaries.

5. The composition as claimed in claim 1,

characterized in that

component A a polymer composed of

a) from 5 to 100% by weight, based on component A,  
of a monofunctional (meth)acrylate monomer  
whose water-solubility is < 2% by weight at  
20°C

b) from 0 to 70% by weight, based on component A,  
of a monomer copolymerizable with the  
(meth)acrylate monomer

c) from 0 to 5% by weight, based on component A,  
of a polyunsaturated compound, and

d) from 0 to 20% by weight, based on component A,  
of a polar monomer whose water-solubility is  
> 2% by weight at 20°C,

and that component B of 2-(2-(2-ethoxyethoxy)-  
ethoxy)ethyl methacrylate, tetrahydrofuryl  
methacrylate or 1,4-butanediol dimethacrylate, and  
that component C comprises, as peroxide, dibenzoyl  
peroxide or dilauryl peroxide, and comprises, as  
accelerator component, N,N-dimethyl-p-toluidine or  
N,N-bis(2-hydroxyethyl)-p-toluidine.

6. The use of a composition as claimed in any of  
claims 1 to 5 as adhesive.

7. The use of a composition as claimed in any of claims 1 to 5 as casting resin.
- 5 8. The use of a composition as claimed in any of claims 1 to 5 as floor coating.
9. The use of a composition as claimed in any of claims 1 to 5 as composition for reactive plugs.
- 10 10. The use of a composition as claimed in any of claims 1 to 5 as dental composition.
- 15 11. The use of a composition as claimed in any of claims 1 to 5 as sealing composition.